From:	egpatent@pacbell.net
Sent:	Monday, January 19, 2004 5:11 PM
To:	Cuff, Michael
Subject:	RE: 09/608,057

Dear Examiner Cuff:

Here is my response to your suggestion that claim 1, as amended below, is obvious over Brinkley (U.S. 5,963,919) in view of Salvo (U.S. 6,341,271). Note that the current version of claim 1 differs from the version I sent to you on Jan. 11, 2004, in that the words "planning" and "planned" in the body of the claim are replaced by the words "computing" and "computed", respectively.

Claim 1 reads as follows:

1. (Currently Amended) A machine-implemented [[An]] inventory planning method, comprising computing [[planning]] a safety stock level to cover uncertainty in demand over an exposure period with a desired service level based at least in part upon product availability from a spot market, wherein the safety stock level is computed (based at least in part on) using a total (spot market product cost) as a function of amount of (product supplied) by one or more spot market sources.

[handwritten annotations: "calculate" "to calculate/compute the safety stock level." "in the calculate" "based"]

Brinkley *[handwritten: a total spot market product cost is used]*

Brinkley describes an inventory management system (MISER program 250) that selects one of multiple possible inventory strategies for an inventory item (see, e.g., Summary of the Invention).

After a portfolio of inventory items having the format shown in FIG. 4 is input into the system, the system "stratifies the portfolio based on three criteria: (order cost, (volume of orders) and number of orders" (col. 9, lines 1-3). "The goal of stratification is to identify the cutoff values used in the various nodes of the decision tree" that is used to select the appropriate inventory strategy (col. 8, lines 47-52). The "cost per order" is the first stratification criteria and is used to identify items that are "high risk" on an order-by-order basis (see col. 9, lines 10-11).

As explained in the following paragraphs, the unit cost input shows in FIG. 4 is used only in the above-described process of determining which inventory strategy to use for a particular inventory item; it is not (used) to compute a safety stock level for the inventory item.

"Once MISER program 250 determines the recommended optimal inventory strategy for each portfolio item, it calculates additional values necessary to implement the recommended strategy" (col. 12, lines 44-47). These calculations are described at col. 12, line 50, through col. 14, line 13. This detailed description clearly shows that safety stock is computed only for inventory strategies 3, 5, 6; safety stock is always zero for each of the other inventory strategies 1, 2, 4. In each inventory strategy where safety

stock is computed, it is computed in the same way: $\boxed{x}$, where k corresponds to the desired service level, σ_{demand} is the standard deviation of demand per period, and L is the procurement lead time.

That is, in accordance with Brinkley's teaching the safety stock level **is not** computed based at least in part on total spot market product cost as a function of amount of product supplied by one or more spot market sources. Indeed, in Brinkley's approach, the cost of an inventory item is never used to compute the safety stock level for the inventory item.

Salvo

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Salvo's inventory management system implements two separate functions: (1) monitoring and determining real-time inventory status; and (2) purchasing inventory at a lowest possible price. (See col. 3, lines 41-62).

Control unit 114 first determines if an inventory order is needed based on amount signals received from each on-site storage device (see col. 5, lines 1-10). Next, the control unit 114 uses signals received from inventory price source 126 to determine a lowest total inventory purchase price vendor (low price vendor) for the inventory. (See col. 6, lines 7-9 and 47-52).

Therefore, in accordance with Salvo's teaching, the price source module 126 is used only to "to determine the lowest available price for the inventory" (col. 6, lines 7-9). The price source module 126 is not used to supply an input into a safety stock calculation engine or the like.

Combining Brinkley and Salvo

You have suggested in the e-mail reproduced below that "it would have been obvious for Brinkley to use the price module (includes spot market) of Salvo as a source for alternate suppliers in order to maximize their options of coming up with the best solution."

The combination of Brinkley and Salvo that is most consistent with the teachings of both references is to use Salvo's price source module to determine the low price vendor AFTER a decision to order an amount of an inventory item has been made by Brinkley's system. That is, Salvo's price source module would not be used to supply an input value into Brinkley's inventory management system.

It is conceivable that Salvo's price source module might be used to determine the unit cost input value for an inventory item (see FIG. 4). As explained above, however, the unit cost value is used only in the process of identifying the optimal inventory strategy for an inventory item; it is not used to compute a safety stock level for the inventory item, as recited in amended claim 1.

In conclusion, there is no combination of Brinkley and Salvo that would have led one of ordinary skill in the art at the time of the invention to perform the machine-implemented inventory planning method now recited in claim 1.

I will call you tomorrow at 3pm your time to discuss these issues further. I will be out of the office tomorrow until approximately 2:30pm your time.

Best regards,

Ed

-----Original Message-----
From: Michael.Cuff@USPTO.GOV [mailto:Michael.Cuff@USPTO.GOV]
Sent: Wednesday, January 14, 2004 12:11 PM
To: egpatent@pacbell.net
Subject: RE: 09/608,057

Ed,

I focused the updated search on "safety stock" and "product cost" based on the proposed amendment.

A reference of interest is Brinkley et al. 5,963,919.

Brinkley shows an inventory management strategy evaluation system.

Figure 4 shows an input table including "unit cost" (product cost) and "weekly period demands" (demand

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over an exposure period)
Figure 6 shows an output table including "safety stock"

The background discusses, column 1, line 31, "Also important is the availability of alternate suppliers and substitutability of goods."

Column 1, lines 58-60 discuss, "For instance, even if an inventory item runs out, it may not pose a great deal of problem for the business if the inventory can be easily replaced in a relatively short period of time."

It would be obvious for Brinkley to use the price module (includes spot market) of Salvo as a source for alternate suppliers in order to maximize their options of coming up with the best solution.

I don't have the case available to look at the other dependent claims. To make this application allowable, we will have to incorporate one of the limitations that the Garg reference covered that would not be obvious to combine.

I will be gone for the long weekend. I suggest that we talk next Tuesday at 3:00 pm EST when I have the case available to discuss claim language.

Thanks
Mike Cuff

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